No. 24-7497
Consolidated with Nos. 21-70168, 21-70670

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

YUROK TRIBE, et al.,
Petitioners,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

On Petitions for Review of Actions of the
U.S. Environmental Protection Agency

SUPPLEMENTAL EXCERPTS OF RECORD
VOLUME 1 OF 1

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EPA, Regulation of Persistent, Bioaccumaltive, and Toxic Chemicals under TSCA Section 6(h), Response to Public Comments (Excerpted)	December 2020	SER-003
Comments of the City of New York on EPA's Proposed Rule Regulating Persistent, Bioaccumulative, and Toxic Chemicals under the Toxic Substances Control Act Section 6(h), EPA-HQ-OPPT-2019-0080	October 2019	SER-004

reference standards, and that they support the proposed approach, which allows continued use of 2,4,6-TTBP as an antioxidant in fuels.

Response: *EPA acknowledges this statement, from a petroleum industry trade group, indicating that the regulation will not have unintended disruptive effects on the use of antioxidants in the nation's fuel supply.*

Comment: A commenter (0575), provided an itemized list of 15 "conditions of use" that EPA should be assessing under section 6(h) of TSCA, described as those uses EPA identified in the Exposure and Use Assessment as a range of known, intended and reasonably foreseen uses of 2,4,6-TTBP. The commenter further states: "…the Proposed Rule fails to regulate the known or reasonably foreseen uses of 2,4,6-TTBP as an intermediate in chemical processing; a reactant in the production of other organic chemicals, plastics, and resins; lubricant grease; cleaning/washing agents; laboratory agents; motor vehicle maintenance; in the off-shore sector; and others. EPA does not even articulate a rationale for failing to reduce exposure from these uses to the extent practicable."

Response: *The itemized list provided has been assembled by the commenter by pulling terms from the text of the Exposure and Use Assessment. The categories assessed for purposes of the TSCA section 6(h)(1)(B) finding are those described in section 7.4 of the Exposure and Use Assessment, Overview of Life Cycle and Potential Sources of Exposure. These are: manufacturing and processing as a reactant/chemical intermediate; incorporation into formulations; use in fuel and related products; use for motor vehicle repair & lubricating agents and other uses (laboratory use). However, for purposes of determining how best to "reduce exposure to the extent practicable" pursuant to the TSCA section 6(h)(4) mandate, EPA considered regulatory measures on the whole chemical and did not parse conditions of use. All descriptions of the uses itemized by the commenter are either captured by the prohibition finalized or are excluded from regulation because further measures were not practicable.*

Comment: A commenter (0575) noting that, unlike other proposed PBT regulations, EPA's proposed regulation for 2,4,6-TTBP does not impose an across the board ban on manufacturing, processing, distribution and use with specified exemptions, asserts: "…EPA's failure to adopt a general prohibition on the chemical's manufacturing and use means that EPA has not reduced exposures to the maximum extent practicable, as required by section 6(h). Rather than itemizing certain uses of 2,4,6-TTBP to regulate, EPA should begin with a broad prohibition (as it has for the other regulated PBTs) and then consider exemptions; in considering exemptions, EPA must consider these only to the extent permitted under TSCA section 6(g)."

Response: *As discussed in response to general comments in the first section of this document, EPA fundamentally disagrees with the commenter's interpretation of TSCA section 6(h) and the application of section 6(g) criteria to EPA regulation of ongoing uses of PBT chemicals: TSCA section 6(h)(4) directs EPA to issue regulations that reduce exposure to PBT chemicals "to the extent practicable," not to regulate beyond the point of practicability and then issue exemptions that would limit the scope of those regulations. The effect of the regulation finalized is similar to that adopted for the other PBT rules, albeit with different expression. In each case, EPA takes a whole chemical approach in implementation of the TSCA section 6(h)(4) "reduce exposure" standard by broadly addressing any activity for the chemical, unless EPA determined that doing so would not be practicable.*

Comment: A commenter (0567) noting that EPA's proposal does not eliminate 2,4,6-TTBP in the fuel supply (refineries, bulk petroleum storage), states that EPA does not provide evidence that industry controls of exposures is equivalent to exposure reduction to the extent practicable, as both workers and nearby communities could be exposed and that a ban is not impracticable.

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October 25, 2019

Via Online Submission

EPA-HQ-OPPT-2019-0080
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Re: Comments of the City of New York on EPA's Proposed Rule Regulating Persistent, Bioaccumulative, and Toxic Chemicals under the Toxic Substances Control Act Section 6(h), EPA-HQ-OPPT-2019-0080

To Whom It May Concern:

The City of New York ("City") submits the following comments in response to EPA's Proposed Rule on the Regulation of Persistent, Bioaccumulative, and Toxic Chemicals under the Toxic Substances Control Act ("TSCA") Section 6(h) (the "Proposed Rule"), published in the Federal Register on July 29, 2019.[1]

I. Introduction

The Proposed Rule regulates five persistent, bioaccumulative, and toxic ("PBT") chemicals that pose greater danger to the health and environment of New Yorkers, especially susceptible subpopulations, than other toxic chemicals because PBT chemicals remain in the environment for long periods of time and do not degrade fast enough to prevent them from accumulating.[2] EPA's hazard summaries for the five PBT chemicals it seeks to regulate in the Proposed Rule reveal evidence of developmental, immunological, carcinogenic, reproductive,

[1] *See* Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA Section 6(h), 84 Fed. Reg. 36,728 (Jul. 29, 2019).

[2] *See id.* at 36,731.

neurological, and body weight effects, as well as adverse effects to the liver, kidneys, ovaries, and heart in mammals.[3] Given the hazards these PBT chemicals present, the City has a strong interest in ensuring that EPA protects human health and the environment by fulfilling its statutory mandate under TSCA.[4]

In 2016, Congress directed EPA to take "[e]xpedited action" to address PBT chemicals.[5] Congress mandated this fast-track promulgation of rules for PBT chemicals due to the heightened health and environmental hazards they present. TSCA, as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act ("LCSA"), required EPA to propose rules by June 22, 2019 regulating PBT chemicals, which it defined as chemicals "(A) that the [EPA] Administrator has a reasonable basis to conclude are toxic and that with respect to persistence and bioaccumulation score high for one and either high or moderate for the other" pursuant to an EPA scoring system,[6] *and* "(B) exposure to which under the conditions of use is likely to the general population or to a potentially exposed or susceptible subpopulation . . . or the environment."[7] EPA evaluated almost all of the approximately 1,235 chemicals it considered for regulation under section 6(h) and identified five chemicals meeting the section 6(h)(1) PBT criteria: decabromodiphenyl ether ("DecaBDE"), isopropylated phosphate (3:1) ("PIP (3:1)"), 2,4,6-tris(tert-butyl)phenol ("2,4,6-TTBP"), hexachlorobutadiene ("HCBD"), and pentachlorothiophenol ("PCTP").[8]

In implementing the Proposed Rule, EPA must choose at least one of the following methods of regulating each of the five PBT chemicals: restricting or banning a chemical; restricting or banning a chemical for a particular use or above a set concentration; mandating minimum warnings and instructions; requiring records retention to assure compliance with TSCA; banning or regulating a manner or method of commercial use; banning or regulating disposal; and/or mandating manufacturers or processors to provide notice of EPA's

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[3] *See id.* at 36,744.

[4] *See* 15 U.S.C. § 2605(h)(4) ("TSCA § 6(h)(4)").

[5] *Id.* § 6(h)(1).

[6] TSCA § 6(h)(1)(A) further limits the eligible PBT chemicals by excluding metals and metal compounds and those for which the Administrator has "completed a Work Plan Problem Formulation, initiated a review under section 5, or entered into a consent agreement under section 4" prior to the passage of the LCSA.

[7] *Id.* § 6(h)(1)(B).

[8] *See* 84 Fed. Reg. at 36,728; EPA, TSCA WORK PLAN CHEMICALS: METHODS DOCUMENT (2012) at 4. EPA did not consider at least two chemical substances for inclusion in this Proposed Rule because it received a manufacturer request to conduct risk evaluations of them. *See id.* at 36,734; *see, e.g.*, Letter from Wendy Cleland-Hamnett, Dir., Office of Pollution Prevention and Toxics, to Xing Han, Regulatory Dir., Toxicology and Risk Assessment, Int'l Flavors & Fragrances, Inc. (Sept. 28, 2016) (on file with EPA).

determination to consumers and others further along the supply chain.[9] Additionally, the LCSA directs EPA that "[i]n selecting among prohibitions and other restrictions . . . the Administrator shall address the risks of injury to health or the environment that the Administrator determines are presented by the chemical substance and shall reduce exposure to the extent practicable."[10]

These comments will outline the City's concerns about and objections to EPA's Proposed Rule, as informed by the particular interests the City has in the regulation of the five identified PBT chemicals given the potentially unique exposure pathways that occur in urban environments and susceptible populations present in the City.

II. EPA's Proposed Rule Fails to Give Adequate Weight to its Statutory Mandate in TSCA Section 6(h).

TSCA section 6(h) states that EPA must take "[e]xpedited action" to "address the risks of injury to health or the environment that . . . are presented by [PBT chemicals] and shall reduce exposure to the extent practicable." Congress's directive to EPA is clear. By failing to "give adequate weight to the statutory language,"[11] EPA fails to meet its statutory directive. In particular, EPA misinterprets "practicable," does not provide a reasoned consideration of all of its regulatory options listed in TSCA section 6(a), and relies impermissibly on other statutes to satisfy its distinct nondiscretionary duty under TSCA.

A. EPA's interpretation of "practicable" in TSCA section 6(h)(4) distorts its statutory mandate.

EPA fails to provide a clear, administrable interpretation of "practicable" in the context of TSCA section 6(h)(4) ("the Administrator . . . shall reduce exposure to the extent practicable") and misinterprets the practicability requirement.[12] EPA interprets the practicability requirement as "generally directing the Agency to consider factors such as achievability, feasibility, workability, and reasonableness."[13] As a preliminary matter, EPA's interpretation fails because it converts the practicability requirement into a factor-based inquiry.[14] Nothing in the mandate

[9] TSCA §§ 6(a)(1)–(7). EPA may choose to impose a requirement in a limited geographic area. *Id.* § 6(a).

[10] *Id.* § 6(h)(4).

[11] *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1215 (5th Cir. 1991).

[12] TSCA § 6(h)(4).

[13] 84 Fed. Reg. at 36,733.

[14] As achievability and feasibility are synonyms, it is unclear how EPA applies an analysis treating them as two separate factors and, more generally, how EPA's analysis proceeds regarding all four factors listed. EPA appears to rely heavily on the reasonableness factor. *See, e.g.*, *id.* at 36,748.

that the EPA Administrator "shall reduce exposure to the extent practicable" suggests that EPA's analysis should or may involve weighing factors not explicated in the statute in arriving at its regulatory proposal.

As EPA notes, TSCA does not define "practicable."[15] In the absence of statutory guidance, then, EPA should be guided by the plain meaning of "practicable." Merriam-Webster defines "practicable" as "capable of being put into practice or of being done or accomplished: feasible,"[16] and Black's Law Dictionary defines it as "reasonably capable of being accomplished: feasible."[17] Based on these definitions, EPA's factor of feasibility is appropriate, but its factor of reasonableness departs from the practicability requirement. The plain meaning of "practicable" might involve reasonableness to the extent that the task should be "reasonably capable of being accomplished."[18] However, EPA's reasonableness factor distorts the practicability requirement into an opportunity for EPA to insert a substantive evaluation of whether the regulatory option is reasonable, rather than reasonably capable of being done. By considering reasonableness where such consideration is not statutorily provided, EPA artificially limits its regulatory options to those it views as reasonable, in contravention of the statutory mandate.

The Proposed Rule is imbued with such misplaced reasonableness judgments, including, but not limited to its analyses of whether to regulate disposal of PBT chemicals, recycled plastics, and PCTP in golf balls (*see* Sections III(C) and IV). For example, EPA concludes that it would be "unreasonable, because of the low concentrations of PCTP in golf balls, for example, and, thus, impracticable to prohibit or otherwise restrict the continued commercial use of the products."[19] However, EPA's evaluation of reasonableness is irrelevant to TSCA section 6(h)(4)—EPA's analysis should hinge on whether it is feasible to prohibit or restrict PCTP in golf balls. EPA itself has found that there is "sufficient evidence of the availability of substitutes" for the usage of PCTP in golf balls, including dibenzamidodiphenyl sulfide.[20] Moreover, a ban would be especially practicable given that EPA has already identified the sole golf ball manufacturer using PCTP. EPA irrationally determines that *de minimis* use of PCTP renders its regulation impractical without adequately demonstrating that the regulation itself would be impracticable to implement or enforce. The LCSA specifically contemplates that PBT chemicals be regulated without consideration of cost or the magnitude of reduction the regulation will achieve, given the highly persistent and toxic nature of these chemicals. By conflating the analysis of practicability with reasonableness, EPA applies an improper standard in its proposed regulation of PBT chemicals.

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[15] *See id.* at 36,733.

[16] *Practicable,* MERRIAM-WEBSTER DICTIONARY (2019).

[17] *Practicable,* BLACK'S LAW DICTIONARY (8th ed. 2004).

[18] *Id.*

[19] 84 Fed. Reg. at 36,745.

[20] *See id.*

Finally, EPA's interpretation of the practicability requirement as "generally directing" EPA to consider certain unspecified factors reads too much discretion into the statute.[21] TSCA section 6(h)(4) imposes an affirmative mandate that the Administrator "*shall* reduce exposure to the extent practicable."[22] The plain meaning of section 6(h)(4) is that EPA must reduce exposure to the extent feasible, *i.e.*, achievable or capable of being accomplished.

B. EPA's Proposed Rule fails to consider all of the regulatory options in TSCA section 6(a).

While EPA explores most of the regulatory options listed in TSCA section 6(a), it fails to consider the option listed in section 6(a)(3) of prescribing minimum warnings and instructions for the PBT chemicals and products containing the PBT chemicals. Aside from mentioning warnings and instructions as a regulatory option, the Proposed Rule contains no discussion of this option. Warnings and instructions would be particularly important to minimize exposures to consumers and workers, who often are susceptible subpopulations. EPA's exposure and use assessment concludes that consumers and workers may be exposed to all five PBT chemicals, whether directly or through contact with the environment, such as through air or drinking water.[23] For example, EPA found that "[d]ermal exposure to 2,4,6-TTBP to workers may occur from transfer and fuel loading operations."[24] Warning labels and instructions at transfer and fuel loading sites would alert workers of risks and encourage them to wear personal protective equipment ("PPE"). EPA cannot meet its burden of promulgating a rule supported by substantial evidence, which is a standard "generally considered to be more rigorous than the arbitrary and capricious standard,"[25] if it fails to weigh an option it is required by statute to consider. In addition to strengthening the options discussed in its Proposed Rule, EPA must consider prescribing warning labels and instructions.

C. EPA's reliance on statutory frameworks beyond TSCA is misguided.

EPA declines to regulate disposal of PBT chemicals altogether, justifying this omission because, purportedly in light of the existing regulatory framework, "it is not practicable to impose additional requirements under TSCA."[26] However, the existence of other statutes addressing a toxic chemical does not render it infeasible to regulate that chemical under TSCA. When Congress promulgated TSCA in 1976, it intended TSCA to "fill a number of regulatory

[21] *Id.* at 36,733.

[22] TSCA § 6(h)(4) (emphasis added).

[23] *See* 84 Fed. Reg. at 36,740–44.

[24] *Id.* at 36,742.

[25] *Envtl. Def. Fund v. EPA*, 636 F.2d 1267, 1277 (D.C. Cir. 1980).

[26] 84 Fed. Reg. at 36,744.

gaps."[27] The fact that the Resource Conservation and Recovery Act ("RCRA") regulates certain aspects of material disposal does not imply that RCRA on its own already comprehensively addresses the risks posed by the PBT chemicals. For example, DecaBDE is found in electronic waste ("e-waste"), but EPA has noted that the federal regulatory framework under RCRA fails to fully address e-waste disposal;[28] instead a patchwork of state laws also governs in the wake of federal deficiencies.[29] Moreover, EPA currently regulates chemical disposals under TSCA for several toxic chemicals, including polychlorinated biphenyls, asbestos, radon, and lead-based paint, indicating that RCRA's regulatory framework governing disposals is not always sufficient to fully address the risks posed by disposing of toxic chemicals.[30] In addition, TSCA and RCRA provide for enforcement against different parties. If the disposal of a PBT chemical stemmed from violations by a manufacturer, for example, EPA might not be able to bring a RCRA enforcement action, but could under TSCA. EPA must carefully reconsider whether RCRA adequately addresses the unique risks to health and the environment posed by the disposal of PBT chemicals. In the Proposed Rule, not only does EPA fail to adequately justify why it would be impracticable to regulate the disposal of the PBT chemicals, but in exempting disposals, EPA also fails to address the risks of injury to health and the environment.

EPA applies similar reasoning in justifying its decision not to regulate HCBD in the Proposed Rule based on the fact that HCBD is regulated under other federal statutes, such as RCRA and the Clean Air Act ("CAA").[31] EPA is similarly mistaken in its decision not to regulate HCBD in the Proposed Rule. While the CAA may regulate releases stemming from fugitive stack emissions, TSCA regulates manufacturing. EPA acknowledges that HCBD "has been detected in a wide variety of media" and that "the total domestic release quantities to all media have remained relatively constant since 2000."[32] Despite continuing releases, EPA maintains that the existing statutory framework suffices. The evidence points to the contrary. EPA's analysis of whether to regulate the manufacturing of HCBD is overly simplistic. EPA discusses two options: (1) ban HCBD manufacturing or (2) do not regulate HCBD manufacturing. EPA claims that "prohibiting the manufacture of HCBD would effectively preclude the manufacture of trichloroethylene, carbon tetrachloride[,] and perchloroethylene."[33] Even if this unsubstantiated statement is true, EPA failed to consider a myriad of options available to it in TSCA section 6(a). For example, EPA could restrict manufacturing, set a

[27] S. REP. NO. 94-698 at 4 (1976).

[28] *See* EPA, BROAD OVERVIEW OF E-WASTE MGMT. POLICIES IN THE U.S. (2013) at 3.

[29] *See id.* at 13.

[30] *See* EPA, *Summary of the Toxic Substances Control Act* (2019), https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act.

[31] *See* 84 Fed. Reg. at 36,753.

[32] *Id.* at 36,743.

[33] *Id.* at 36,753.

concentration limit, or prohibit certain commercial uses. EPA does not discuss any of these possibilities. In addition, EPA's failure to identify uses of HCBD, aside from combustion as a waste fuel, does not obviate its need to consider chemical alternatives. As EPA notes, HCBD is produced as a byproduct from the syntheses of perchloroethylene, trichloroethylene, and carbon tetrachloride. Therefore, EPA should consider whether viable alternative synthetic routes exist that do not result in the production of HCBD as a byproduct.

EPA also assumes that existing Occupational Safety and Health Administration ("OSHA") regulations will suffice to protect workers, which it considers to be a susceptible subpopulation (*see* Section III(B)), from exposures to PBT chemicals. Workers in the City are susceptible to PBT chemical exposure. For example, 2,4,6-TTBP has been used as an additive in fuel, oil, lubricants, and gasoline. New Yorkers who work with these products (*e.g.*, in auto-body repair shops) or near where they are used would be at the greatest risk of exposure. It is common in the City, given urban density and its constraints, that facilities using PBT chemicals are often located adjacent to or in very close proximity to residences, and therefore individuals living near facilities where PBT chemicals are used may also be exposed. EPA's complete reliance on OSHA regulations to provide adequate worker protection is erroneous because, as EPA acknowledges, OSHA regulations do not include mandatory standards to protect workers from workplace exposures to the PBT chemicals. Rather, OSHA provides guidance that employers consider using reference exposure limits, such as the Centers for Disease Control and Prevention ("CDC") National Institute for Occupational Safety and Health ("NIOSH") Recommended Exposure Limits ("RELs").[34] NIOSH indicates that HCBD has exposure routes through inhalation, skin absorption, ingestion, and skin and eye contact.[35] Therefore, NIOSH recommends personal protection against skin and eye contact and provides respirator recommendations, with an REL of 0.02 parts per million.[36] Even though NIOSH has set an REL for HCBD, neither OSHA nor EPA verifies whether employers implement the REL. NIOSH has not set RELs for the other four PBT chemicals regulated in the Proposed Rule. The lack of any mandatory workplace protections from any of the five PBT chemicals, and no guiding limits of any kind for four of them, is a gap that EPA must address to meet its mandate to "reduce exposure to the extent practicable." Finally, as OSHA regulates the employer, rather than the chemical manufacturer, OSHA cannot prescribe how production and labeling of a chemical can minimize exposure to workers. EPA must implement workplace protections under TSCA to address all the risks of injury presented by the PBT chemicals to workers. OSHA's requirements and recommendations alone are inadequate to safeguard workers from the PBT chemicals.[37]

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[34] *See* NIOSH, *Permissible Exposure Limits – Annotated Tables* (last visited Oct. 3, 2019), https://www.osha.gov/dsg/annotated-pels/.

[35] NIOSH, *Hexachlorobutadiene* (last visited Oct. 3, 2019), https://www.cdc.gov/niosh/npg/npgd0314.html.

[36] *Id.*

[37] Some states have implemented State Plans, which may provide for greater protections from PBT chemicals. However, only a minority of states have taken such actions. In New York, state and local government workers receive protections under the State Plan, but private workers

EPA routinely supplements OSHA's regulations in order to provide sufficiently robust worker protections. For instance, through March 2019, EPA has supplemented OSHA's PPE requirements in 463 Significant New Use Rules ("SNURs"),[38] and has supplemented OSHA's hazard communication requirements in 404 SNURs.[39] In that context, only when EPA makes a "not likely to present" finding in response to a premanufacture notice submitted for a chemical does EPA choose not to impose additional restrictions beyond OSHA's regulations.[40] In the Proposed Rule, EPA should supplement OSHA's requirements to an even greater extent than it does for SNURs because EPA has already determined that the PBT chemicals are toxic, persistent, and bioaccumulative, and Congress has mandated EPA to act swiftly to address them. The workplace protections EPA implements for PBT chemicals—which present known and urgent risks—must be significantly more stringent than those EPA mandates for new chemicals more generally. Failing to require any additional workplace protections will certainly place workers at continued risk of injury. EPA failed in the Proposed Rule to provide a reasoned explanation for declining to supplement OSHA's regulations with respect to the PBT chemicals, as it has for other chemicals posing less serious risks.

EPA must give sufficient weight to its statutory mandate in TSCA section 6(h). When Congress passed the LCSA, it was aware of the existing statutory framework governing toxics, including RCRA, OSHA, and CAA, but nonetheless concluded that expedited action was needed on PBT chemicals and that a reduction in exposure through further regulation under TSCA was warranted. EPA's rulemaking should give adequate weight to section 6(h) and include a careful consideration of all of the regulatory options.

III. EPA Omits Several Key Considerations in its Proposed Rule.

The Proposed Rule omits several key considerations. EPA neglects to address legacy uses and disposal, as well as the risks to susceptible subpopulations and low-income individuals and minority populations. EPA also carves out overly broad exemptions, such as for recycling and new and replacement parts. EPA's omissions and exemptions violate its obligation to base its decision on the entire record.[41] EPA must address its omissions and eliminate or narrow the exemptions discussed below.

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remain under the auspices of only the OSHA regulations. *See* OSHA, *State Plans* (last visited Oct. 3, 2019), https://www.osha.gov/dcsp/osp/index.html**.**

[38] *See Hearing on "Mismanaging Chemical Risks: EPA's Failure to Protect Workers" Before the House Subcomm. on Env't and Climate Change*, 116th Cong. 2 (statement of Mark N. Duvall).

[39] *See id.* at 3.

[40] *See id.*

[41] *See Corrosion Proof Fittings*, 947 F.2d at 1213.

A. EPA must address legacy uses and disposals of the PBT chemicals.

To fulfill its statutory mandate to "[address] the risks of injury to health or the environment" posed by the PBT chemicals, EPA must consider all forms of the chemicals' use and disposal.[42] Failure to do so results in an incomplete accounting of the risks of injury they present. EPA's Proposed Rule neglects to discuss or even mention legacy uses and legacy disposals of PBT chemicals, which is an especially concerning oversight in light of the fact that PBT chemicals are so classified due to their chemical property of persistence.[43] Even if EPA banned all new manufacture, import, processing, or distribution of PBT chemicals, PBT chemicals would continue to present "risks of injury to health or the environment" because they would continue to persist in people, other organisms, and the environment.

Legacy exposure contributes to the rate of background exposure to individuals, and may result when people live or work in environments that contain legacy chemicals as well as when legacy disposals cause individuals to come into contact with a chemical substance through the air, water, or another exposure pathway. Given that the City's building stock is voluminous and substantially older than the national average, legacy uses and disposals of certain chemicals are potentially significant sources of human exposure and impacts to human health and the environment. For example, DecaBDE, which is used as a flame retardant in textiles, plastics, and polyurethane foam, and PIP (3:1), which is used as a flame retardant in consumer products, are undoubtedly present in the homes, schools, and workplaces of many New Yorkers. These legacy exposures will persist, as flame retardants have been so widely used in electronics, paints, adhesives, carpets, foam, and other common products. Some populations, such as firefighters, are likely to have particularly high exposures. Even when a chemical substance is no longer manufactured and distributed in the national economy, it may still be present in a substantial proportion of the building stock in the City, and therefore such unaccounted-for exposure pathways may continue to pose ongoing and future risks to human health.

If EPA declines to consider legacy exposures in issuing a Final Rule, it will have failed to address not only the nature of the risks posed by the PBT chemicals, but their cumulative level of risk. For instance, by only taking into account risks posed by new uses, EPA may determine that only a minimal level of regulation for a PBT chemical is practicable and adequately addresses risks. However, subpopulations susceptible to harm from low-level exposures will continue to face heightened risks from a PBT chemical when legacy exposures are considered. For example,

[42] TSCA § 6(h)(4).

[43] Legacy chemicals are substances that remain in the built or natural environment long after their introduction. Activities associated with legacy chemicals ("legacy activities") include legacy use, associated disposal, and legacy disposal. Legacy uses are circumstances in which a chemical is present in the environment, but not associated with ongoing manufacture, processing or distribution. Associated disposal is, for example, the future demolition of building materials that contain a particular chemical substance. Finally, legacy disposals are disposals of legacy chemicals that have already taken place, causing the chemical substance to currently exist in landfills or waterways. *See* Procedures for Chemical Risk Evaluation Under the Amended Toxic Substances Control Act, 82 Fed. Reg. 33,726 (Jul. 20, 2017).

a pregnant woman may face a risk of adverse health impacts solely from background exposure attributable to legacy uses found in the building in which she resides. Similarly, workers and other subpopulations facing exposure from multiple sources, including legacy activities, may not be sufficiently protected. Further, if EPA concludes that the risks presented by a PBT chemical have been adequately addressed, but in its analysis failed to include legacy uses, certain exposure risks due to legacy uses are likely to remain unaddressed. Not evaluating all sources of background exposure, including from legacy uses, in assessing the risk a chemical substance poses is contrary to EPA's mandate to "address risks of injury to health or the environment" posed by PBT chemicals and would result in inadequate protections for residents of New York and other jurisdictions.

B. EPA must address the risks posed to susceptible subpopulations, minority communities, and low-income individuals.

Susceptible subpopulations are at heightened risk of harm because they are especially sensitive to PBT chemicals and/or suffer from unusually high exposures to them. TSCA section 6(h)(1)(B) requires EPA to propose rules regulating PBT chemicals, "exposure to which under the conditions of use is likely to the general population or to a potentially susceptible subpopulation . . . or the environment."[44] In the Proposed Rule, EPA identifies consumers and workers as susceptible subpopulations, in addition to the statutorily defined subpopulations of infants, children, pregnant women, and the elderly.[45] However, EPA omits certain susceptible subpopulations and generally fails to explicate how its Proposed Rule will address the unique risks posed to susceptible subpopulations. Specifically, the CDC has identified pregnant women, infants, children, workers, and firefighters as subpopulations susceptible to DecaBDE,[46] and people with preexisting kidney or liver damage, infants, workers, those living near HCBD sources, and individuals consuming large amounts of fish as subpopulations susceptible to HCBD.[47]

To address the risks presented by the PBT chemicals, as mandated by TSCA section 6(h)(4), EPA must fully analyze and account for the risks presented to *all* susceptible subpopulations. At present, EPA's analysis is insufficient. For example, EPA contends that while the PBT chemicals may have a disproportionate effect on children, its Proposed Rule reduces exposures for all (including children) and thus it adequately addresses the risks to

[44] TSCA § 6(h)(1)(B).

[45] *See* 15 U.S.C. § 2602(12) ("TSCA § 3(12)"); 84 Fed. Reg. at 36,732. Note that the listed subpopulations included in TSCA § 3(12) are not exclusive.

[46] *See* CDC AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, TOXICOLOGICAL PROFILE FOR POLYBROMINATED DIPHENYL ETHERS (PBDES) (2017) at 314–15, 439 ("PBDEs Toxicological Profile").

[47] *See* CDC AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, TOXICOLOGICAL PROFILE FOR HEXACHLOROBUTADIENE (1994) at 61, 88.

children.[48] However, EPA does not demonstrate that the Proposed Rule's reduction of exposure to children is adequate given the heightened risks that PBT chemicals pose to their growth and development. The Proposed Rule fails to account for potentially unique exposure pathways or uses that are of particular concern for children. Though EPA suggests that it needs to perform a risk assessment or evaluation in order to assess the risks to children, neither would be appropriate as a precondition to protective regulation, as section 6(h) provides for "expedited action" on PBT chemicals. EPA must implement regulations that "reduce exposure to the extent practicable," now, even if a risk assessment is advisable. Regardless, EPA's Exposure and Use Assessment already contains information on children's exposure to the five PBT chemicals.[49] Therefore, EPA should more closely analyze these data and any other relevant information to ensure that the Proposed Rule addresses the specific risks for children, as well as all susceptible subpopulations.

In addition, EPA should conduct a more thorough analysis of whether the Proposed Rule sufficiently addresses the risks posed to minority populations and low-income individuals. Executive Order 12,898 instructs EPA to ensure that it does not deny people the benefits of its activities on the basis of race or national origin.[50] EPA's cursory discussion of the environmental justice impacts of its Proposed Rule focuses solely on the fact that any health-protective benefits of the Proposed Rule will flow indiscriminately to those who are part of minority communities and live in poverty as well as others.[51] The reality is that minority and urban populations living below the poverty line experience a confluence of challenges that render them more prone to manifesting health issues from toxics exposure.[52] EPA must identify disproportionate exposures and strengthen the protections in the Proposed Rule to account for any such exposures and the susceptibility low-income and minority populations face. For example, minority children, on average, spend more time in houses with higher dust levels,[53] and household dust is a known exposure path for polybrominated diphenyl ethers ("PBDEs") (a class of flame retardants that includes DecaBDE) and HCBD.[54] Additionally, certain minority populations in locations throughout the country have been recorded as eating higher quantities of fish daily than the EPA default consumption rate, subjecting them to higher exposures to PBT

[48] *See* 84 Fed. Reg. at 36,758.

[49] *See* EPA, EXPOSURE AND USE ASSESSMENT OF FIVE PERSISTENT, BIOACCUMULATIVE AND TOXIC CHEMICALS (2018).

[50] *See* Exec. Order No. 12,898, 59 Fed. Reg. 7,629 (Jan. 30, 1995).

[51] *See* EPA, ECON. ANALYSIS FOR PROPOSED REG. OF PERSISTENT, BIOACCUMULATIVE, AND TOXIC CHEMICALS UNDER TSCA SECTION 6(H) (2019) at 7-6.

[52] *See* Michael Gochfeld and Joanna Burger, *Disproportionate Exposures in Environmental Justice and Other Populations: the Importance of Outliers*, 101 AM. J. PUB. HEALTH S53, S54, S59 (2011).

[53] *See id.* at S54.

[54] *See* INT'L POPS ELIMINATION NETWORK, TOXIC LOOPHOLE: RECYCLING HAZARDOUS WASTE INTO NEW PRODUCTS (2018) at 7.

and other toxic chemicals that are bioamplified.[55] To ensure that minority and low-income individuals—as well as all susceptible subpopulations—are not denied the benefits of the Proposed Rule, EPA must reevaluate whether its protections from PBT chemicals in the Proposed Rule are rigorous enough to safeguard all communities, in conformance with Executive Order 12,898.

C. EPA's recycling exemption for products containing DecaBDE or PIP (3:1) continues to leave consumers at risk of exposure to DecaBDE and PIP (3:1).

EPA declines to prohibit the recycling of plastic containing DecaBDE, reasoning, "[a]n element of practicability is reasonableness. EPA does not believe it is reasonable, and thereby practicable, to impose a large burden on society through the further reduction or elimination of low concentrations of DecaBDE in articles made from recycled materials."[56] EPA also proposes to exempt the recycling of products containing PIP (3:1) if it receives comments justifying that such an exemption is needed.[57] However, as EPA has explained, "[h]azardous wastes do not cease to be dangerous simply because they are being reused, recycled, or reclaimed."[58] DecaBDE is a flame retardant added to products containing plastic, such as electronics and electronics accessories, upholstered furniture, and textiles.[59] According to the CDC, recycling plastics containing PBDEs is a common practice in industry.[60] The abundance of toxic chemicals in e-waste, in particular, creates a significant enough global environmental challenge that in 2011, as a member of the newly-formed Interagency Task Force on Electronics Stewardship, EPA jointly released a National Strategy for Electronics Stewardship.[61] EPA's

[55] *See* Gochfeld and Burger, *supra* note 52 at S58. When organisms are exposed to PBT chemicals, the "PBT chemicals increase in concentration in the exposed organism's tissues relative to the concentrations in the environmental media to which they are exposed." 84 Fed. Reg. at 36,731. Humans and other predators, particularly apex predators, have even higher concentrations of PBT chemicals in their tissues due to biomagnification, which occurs via the consumption of food containing PBT chemicals. Amplified concentrations of PBT chemicals stored in human tissue pose health hazards. People eating higher quantities of fish, including many minority communities, are at higher risk of injury due to their increased exposure to PBT chemicals.

[56] 84 Fed. Reg. at 36,748.

[57] *See id.* at 36,750.

[58] *See* EPA, *Regulatory Exclusions and Alternative Standards for the Recycling of Materials, Solid Wastes and Hazardous Wastes* (2019), https://www.epa.gov/hw/regulatory-exclusions-and-alternative-standards-recycling-materials-solid-wastes-and-hazardous.

[59] 84 Fed. Reg. at 36,734.

[60] *See* PBDEs Toxicological Profile, *supra* note 46 at 364.

[61] *See* EPA, *Cleaning Up Electronic Waste (E-Waste)* (Dec. 3, 2018), https://www.epa.gov/international-cooperation/cleaning-electronic-waste-e-waste.

joint Moving Sustainable Electronics Forward report emphasizes the need for the federal government to lead by example in improving the safe and effective management of e-waste throughout its lifecycle, including recycling.[62]

EPA has cited no data supporting its conclusory statement that recycled plastics contain low concentrations of DecaBDE. States such as Washington have found DecaBDE in clothing and toys for children and infants, as well as other consumer products.[63] In the absence of federal regulation, states have been forced to fill in the gaps.[64] Moreover, plastics from e-waste are recycled for use in consumer products such as toys, hair accessories, and kitchen utensils—products that originally did not contain PBDEs but have elevated levels of PBDEs due to the addition of recycled e-waste plastic.[65] Even if no new DecaBDE is added, recycling plastic already containing DecaBDE into new products will inevitably lead to the presence of DecaBDE in new, otherwise-uncontaminated products. Additionally, any difficulty in distinguishing among PBDE congeners through testing should not deter EPA from properly regulating the use of recycled plastics.[66] According to the CDC, PBDEs as a class are associated with altered neurodevelopment, and lower-brominated PBDEs are likely even more toxic than DecaBDE.[67] As plastics containing PBDEs—including, but not limited to DecaBDE—are commonly recycled, and recycled plastics containing PBDEs manifest in consumer products, EPA should not limit itself to examining only DecaBDE when PBDEs generally raise the same concerns. EPA should not exempt the recycling of products containing DecaBDE or PIP (3:1) from regulation under the Proposed Rule.

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[62] *See* INTERAGENCY TASK FORCE ON ELECTRONICS STEWARDSHIP, MOVING SUSTAINABLE ELECTRONICS FORWARD: AN UPDATE TO THE NATIONAL STRATEGY FOR ELECTRONICS STEWARDSHIP (2014); *see also* INTERAGENCY TASK FORCE ON ELECTRONICS STEWARDSHIP, NATIONAL STRATEGY FOR ELECTRONICS STEWARDSHIP (2011).

[63] *See* EPA, PRELIMINARY INFO. ON MANUFACTURING, PROCESSING, DISTRIBUTION, USE AND DISPOSAL: DECABROMODIPHENYL ETHER (2017) at 6; Wash. State Dep't of Health, *PBDEs* (last visited Oct. 1, 2019), https://www.doh.wa.gov/CommunityandEnvironment/Contaminants/PBDEs.

[64] *See* Elaine S. Povich, *States Aren't Waiting for Feds to Ban Flame Retardants from Kids' Products*, PEW (Mar. 20, 2018), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/03/20/states-arent-waiting-for-feds-to-ban-flame-retardants-from-kids-products.

[65] *See* INT'L POPS ELIMINATION NETWORK, *supra* note 54 at 21.

[66] 84 Fed. Reg. at 36,748.

[67] *See* PBDEs Toxicological Profile, *supra* note 46 at 4.

D. EPA's exemption of replacement parts containing DecaBDE or PIP (3:1) is overly broad.

EPA's proposed determination that it would be impracticable to regulate replacement parts for the automotive and aerospace industries provides no guarantee or even monitoring to ensure that industries will actually phase out DecaBDE and PIP (3:1), if it is present, from replacement parts. Though EPA indicates that the aerospace industry "expects" to phase out DecaBDE in the next three years,[68] EPA is not proposing to ascertain whether that phase-out occurs. Ref. 39 cited by EPA for the expected three-year phase-out does not mention any specific aerospace industry timelines for phasing out DecaBDE.[69] Even if it did, EPA already has cause to doubt the efficacy of voluntary industry phase-outs of DecaBDE. The 2009 EPA-Industry DecaBDE Phase-Out Initiative has demonstrated its inefficacy, as a number of companies continue to process and use DecaBDE in spite of EPA's collaborative efforts to phase out use.[70] Subsequent to this failure, EPA has failed to take any steps to prevent or prohibit the continued processing and use DecaBDE, and instead has only requested comments from companies using DecaBDE. Even if EPA receives comments from these companies, EPA must reevaluate whether a voluntary or predicted phase-out is an effective strategy to reduce exposure. On its face, such a strategy fails to meet the mandate imposed by TSCA that EPA "*shall* reduce exposure" to these chemicals.

In addition, the automotive industry misinterprets 49 U.S.C. section 30120 to justify an unwarranted fifteen-year grace period.[71] When an automotive manufacturer's equipment is noncompliant or has a defect, section 30120 allows the manufacturer to choose from among several options for replacement equipment: "repairing the equipment, replacing the equipment with identical or reasonably equivalent equipment, or by refunding the purchase price."[72] The fifteen-year period in section 30120(g) simply calls for a "remedy to be provided without charge" during such time period.[73] That remedy may be any of the options listed in section 30120(a)(1)(B). An automotive manufacturer can satisfy section 30120 by providing a "reasonably equivalent" replacement part uncontaminated with DecaBDE, or simply providing a refund or repair. Providing refunds or repairs would obviate any need to remanufacture entire parts.

[68] 84 Fed. Reg. at 36,746.

[69] *See id.*; Letter from Leslie Riegle, Dir., Envtl. Policy, Aerospace Indus. Ass'n, to Prods. Div., Env't Canada. (Dec. 13, 2013) (on file with EPA).

[70] *See id.* at 36,735.

[71] This statute is found in Chapter 49, not 42, of the U.S. Code.

[72] 49 U.S.C. § 30120(a)(1)(B) (2015).

[73] *Id.* § 30120(g)(1).

If EPA determines that a grace period is necessary, fifteen years is not the appropriate length of time simply because it is a statutory period included in section 30120(g).[74] The relevant grace period, if any, would pertain to the amount of time needed by the industries to comply. For example, in 2013, the Aerospace Industries Association requested a ten-year grace period, which would have lasted through 2023 (though it did not provide specific justification as to why ten years was appropriate).[75] Here, EPA has failed to provide a reasoned basis for a fifteen-year grace period for the automotive industry.

Since EPA believes that these replacement parts meet the section 6(g)(1)(B) criterion of disrupting critical infrastructure, the application of a section 6(g) exemption for certain replacement parts would be more appropriate than no regulatory action. Additionally, since TSCA section 6(g)(3) establishes that the exemptions are time-limited, this provision is especially fitting. Under section 6(g), EPA could provide time-limited exemptions for both the automotive and aerospace industries to allow them an opportunity to come into compliance. The section 6(g) process would make the industries more accountable to the public than a "not practicable" determination would, as it involves a public analysis of the need for the exemption and a public justification for the length of the exemption.[76] The process is also beneficial to EPA because it empowers EPA to establish "reasonable recordkeeping, monitoring, and reporting requirements,"[77] all of which would provide EPA with compliance information that a voluntary phase-out would lack. EPA should not provide blanket exemptions for replacement parts containing PIP (3:1) or DecaBDE and should consider regulating these replacement parts under section 6(g) instead.

E. <u>EPA's exemption of new parts containing PIP (3:1) is overly broad.</u>

EPA applies the same reasoning it used to justify exempting replacement parts containing DecaBDE or PIP (3:1) to justify an exemption for new automotive parts containing PIP (3:1).[78] That reasoning is discussed above in Section III(D). EPA adds that "any restriction on the processing and distribution in commerce of new parts for the automotive industry could increase costs and safety concerns without meaningful exposure reductions."[79] EPA again applies a subjective reasonableness standard to its consideration of this regulatory action instead of analyzing whether the action would be practicable. Additionally, EPA understates the potential benefits of reducing exposures to PIP (3:1) (*see* Section III(F)) and does not provide evidentiary

[74] The Secretary of Transportation has the authority to compel an accelerated remedy program. *See id.* § 30120(c)(3).

[75] *See* Letter from Leslie Riegle, *supra* note 69 at 4.

[76] *See* TSCA §§ 6(g)(2), 6(g)(3).

[77] *Id.* § 6(g)(4).

[78] *See* 84 Fed. Reg. at 36,749.

[79] *Id.*

support for its conclusion that meaningful exposure reductions would not occur. Lastly, EPA fails to consider the possibility of requiring manufacturers to research alternatives in order to phase out PIP (3:1) by a specified compliance date. EPA should consider a section 6(g) exemption for new parts containing PIP (3:1), as discussed above in Section III(D).

F. EPA understates the benefits of its proposed regulatory actions.

The Proposed Rule fails to adequately account for the benefits of minimizing exposures to the PBT chemicals, and as a result, makes numerous determinations not to regulate when regulation is needed. EPA's Economic Analysis rightly identifies that "preventing initial releases to air, land and water as a result of manufacture and/or use of these chemicals protects human health and the environment."[80] However, EPA's brief, purely qualitative analysis of the benefits of its proposed actions does not venture far beyond this conclusion. EPA has not provided adequate support for its claim that in the absence of a risk evaluation, it is not possible for EPA to quantify the benefits of its proposed regulatory actions.[81] Even if this claim is true, EPA must adequately weigh and explicate the myriad benefits of regulatory action on PBT chemicals. Some of these benefits might be quantifiable, such as the healthcare savings that would accrue due to a lower incidence of health problems caused in-whole or in-part by the PBT chemicals or the economic benefits of greater availability and higher quality of fish and other food sources that are less contaminated by them. EPA must also consider the qualitative benefits that would accrue as a result of a lower incidence of health issues related to PBT chemical toxicity and the gradual elimination of these chemicals from the environment, such as improved quality of life and greater access to recreational opportunities stemming from a cleaner environment. Without adequately weighing the benefits of the regulatory actions EPA considers, EPA cannot have a reasoned basis for declining to regulate. In order for EPA "to consider all necessary evidence,"[82] it must address the omissions and broad exemptions discussed above.

IV. EPA Should Provide Greater Transparency to the Public in Commercial Records Pertaining to Toxic Chemicals.

Without access to sufficient data from EPA on production of and exposure to the PBT chemicals, it is not possible for the City to quantify the risks posed by PBT chemicals to its residents. For example, EPA states that the production volume of PCTP was claimed as confidential business information, so it is very difficult to determine how many New Yorkers may be exposed.[83] EPA's proposed regulation of PCTP is a prohibition of PCTP and PCTP-containing products above 1% in concentration. However, absent information about the

[80] ECON. ANALYSIS, *supra* note 51 at 5-27–5-28.

[81] EPA should not wait to conduct a risk evaluation for any of these five PBT chemicals before regulating the chemicals because it is required to fulfill its statutory mandate of taking expedited action under section 6(h).

[82] *Corrosion Proof Fittings*, 947 F.2d at 1215.

[83] *See* 84 Fed. Reg. at 36,735.

production volume of PCTP and PCTP-containing products and what concentrations of PCTP are present in those products, including, but not limited to in zinc PCTP as an impurity,[84] the practical effect of this prohibition cannot be ascertained.

Similarly, EPA does not provide enough information to allow the public to determine whether EPA's 55-gallon limitation for 2,4,6-TTBP would be an effective means of eliminating the risks of 2,4,6-TTBP to retail users. EPA appears to derive its 55-gallon limitation from the information it gleaned from a *single* chemical processor of 2,4,6-TTBP.[85] EPA's proposed 55-gallon restriction is not accompanied by an adequate analysis of industry practices or an inquiry into whether this restriction will in fact address all consumer uses of 2,4,6-TTBP. The loopholes for this restriction are glaring: a retailer could easily bypass EPA's proposed restriction by storing its 2,4,6-TTBP or 2,4,6-TTBP-containing product in a slightly larger container. The possibility that this loophole might be exploited is not remote. Retailers vary greatly in size; they constitute not just smaller retailers, like automotive repair shops, but also larger retailers, like marinas.[86] Implementing a set volume-based restriction to encompass retailers that vary so greatly in size is fundamentally flawed. EPA should select a more reliable and less easily exploited means of implementing its laudable goal of preventing retail workers, who lack adequate workplace protection measures, from being exposed to 2,4,6-TTBP.

Finally, EPA should amend its Proposed Rule to require recordkeeping by businesses for all five of the PBT chemicals for at least five years. As EPA reasons, "a five-year record retention period would require the preservation of records for the time period that a matter could be investigated and an enforcement action commenced."[87] Despite this acknowledgment, EPA declines to impose a five-year period and instead proposes a three-year recordkeeping period without any explanation. In order to allow its own enforcement of TSCA to be fruitful, EPA should require recordkeeping for at least five years, or as long as would support successful enforcement of its Final Rule.

Providing more transparency through measures like these will empower the public to better understand risks and exposures and to provide a more informed response to EPA in the course of the rulemaking process. In particular, improved access to relevant data would aid public health officials, emergency responders, and regulators in cities across the country in weighing and responding to the hazards presented by toxic chemicals. EPA is uniquely positioned to provide such data, and it would allow for more effective and data-driven regulation under TSCA.

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[84] *See id.* at 36,754.

[85] *See id.* at 36,737.

[86] *See id.* at 36,730.

[87] *Id.* at 36,746.

V. Conclusion

EPA should revise its Proposed Rule in order to meet its statutory mandate and address the issues described herein. Going forward, EPA should also provide the public with all information necessary to ascertain the risks posed by toxic chemicals it seeks to regulate. The City thanks EPA for its consideration and for providing the opportunity to submit these comments.